

IN THE CLAIMS:

Specific Instructions for Claim Amendments:

Please add Claims 71 and 72 as shown below.

Listing of Claims:

1. (Previously Presented) A composition for eliciting a cellular immune response, comprising isolated mannose receptor-bearing cells and a conjugate comprising an antigen and a carbohydrate polymer comprising mannose, wherein said carbohydrate polymer is a fully oxidized carbohydrate polymer comprising free aldehydes.
2. (Cancelled)
3. (Original) The composition of Claim 1, wherein said mannose receptor-bearing cells are derived from a cell population selected from the group consisting of peripheral blood leukocytes, bone marrow, stem cells, tumor cells, stromal cells, peritoneal cells, spleen, lung and lymph node cells.
4. (Original) The composition of Claim 1, wherein said mannose receptor-bearing cells comprise cells that are enriched for cells selected from the group consisting of macrophage cells and dendritic cells.
5. (Original) The composition of Claim 1, wherein said mannose receptor-bearing cells comprise cells that express molecules selected from the group consisting of mannose receptor, CD11b, CD14, CD68, CD80 and CD86.
6. (Original) The composition of Claim 1, wherein said mannose receptor-bearing cells are combined with said conjugate *in vitro*.
7. (Original) The composition of Claim 1, wherein said mannose receptor-bearing cells are combined with said conjugate *ex vivo*.
8. (Previously Presented) The composition of Claim 1, wherein said mannose receptor-bearing cells comprise cells that have been contacted with one or more biological response modifiers under conditions effective to induce expression of carbohydrate receptors by said cells.

9. (Previously Presented) The composition of Claim 8, wherein said biological response modifiers induce expression of mannose receptors on a cell capable of expressing said mannose receptors.

10. (Original) The composition of Claim 8, wherein said biological response modifiers are selected from the group consisting of a cytokine and a vitamin.

11. (Previously Presented) The composition of Claim 8, wherein said biological response modifiers are selected from the group consisting of granulocyte macrophage colony stimulating factor (GM-CSF), interleukin-3, interleukin-4, vitamin D, macrophage colony stimulating factor (M-CSF), Flt-3 ligand and tumor necrosis factor (TNF) alpha.

12. (Previously Presented) The composition of Claim 1, wherein said antigen is selected from the group consisting of: nm23, p53, Her2/neu, human mucin 1 (MUC1), BRACA1, BRACA2, melanoma specific antigen (MAGE antigen), carcino embryonic antigen (CEA), ErbB2, pollen, hepatitis C virus (HPV) core protein, HPV E1 protein, HPV E2 protein, HPV NS2 protein, Plasmodium falciparum circumsporozoite protein, HIV-gp120/160 envelope glycoprotein, streptococcus surface protein Ag, influenza nucleoprotein, hemagglutinin-neuraminidase surface infection, TcpA pilin subunit, Hepatitis A virus VP1 protein, LMCV nucleoprotein, Leishmania major surface glycoprotein (gp63), Bordetella pertussis surface protein, rabies virus G protein, Streptococcus M protein, respiratory syncytial virus (RSV) F protein, RSV G protein, Epstein Barr virus (EBV) gp340, EBV nucleocapsid protein, hemagglutinin, Borrelia burgdorferi outer surface protein (Osp) A, Mycobacterium tuberculosis 38kDa lipoprotein, Mycobacterium tuberculosis Ag85, Neisseria meningitidis class 1 outer protein, Varicella zoster virus IE62, Varicella zoster virus gpI, Rubella virus capsid protein, Hepatitis B virus pre S1 ag, Herpes simplex virus type I glycoprotein G, Herpes simplex virus type I gp D, Herpes simplex virus type I CP27, Murray valley encephalitis virus E glycoprotein, polio virus capsid protein VP1, polio virus capsid protein VP2, polio virus capsid protein VP3, chlamydia trachomatis surface protein, Hepatitis B virus envelope Ag pre S2, Human rhinovirus (HRV) capsid, papillomavirus peptides from oncogene E6, papillomavirus peptides from oncogene E7, Listeria surface protein, Varicella virus envelope protein, Vaccinia virus envelope protein, Brucella surface

protein, a combination of one or more of said antigens, an antigenic fragment of said antigens that is five or more amino acids in length and combinations of one or more of said fragments.

13. (Previously Presented) The composition of Claim 1, wherein said antigen is a mucin polypeptide, one or more repeated subunits thereof, or an antigenic fragment of said repeated subunits, said fragment comprising at least 5 amino acids of said repeated subunits.

14. (Original) The composition of Claim 13, wherein said mucin is human mucin.

15. (Previously Presented) The composition of Claim 13, wherein said antigen comprises two to eighty copies of said repeated subunits of human mucin.

16. (Original) The composition of Claim 13, wherein said one or more repeated subunits of said antigen comprise part of a fusion polypeptide.

17. (Previously Presented) The composition of Claim 1, wherein said mannose is selected from the group consisting of: (a) mannose and (b) a conformational and configurational isomer of mannose.

18. (Cancelled)

19. (Original) The composition of Claim 1, wherein said composition further comprises a pharmaceutically acceptable carrier.

20. (Previously Presented) A composition comprising a mannose receptor-bearing cell population for eliciting a cellular immune response, wherein said population is derived by culturing mannose receptor-bearing cells with an antigen delivery medium under conditions effective to produce said mannose receptor-bearing cell population, wherein said antigen delivery medium comprises a conjugate comprising an antigen and a carbohydrate polymer comprising mannose, wherein said carbohydrate polymer is a fully oxidized carbohydrate polymer comprising free aldehydes.

21. (Previously Presented) The composition of Claim 20, wherein said antigen delivery medium comprises a conjugate comprising an antigen and a carbohydrate polymer comprising mannose selected from the group consisting of fully oxidized mannose comprising free aldehydes and partially reduced mannose having aldehydes.

22. (Cancelled)

23. (Cancelled)

24. (Previously Presented) The composition of Claim 20, wherein said mannose receptor-bearing cell population has been incubated in contact with one or more biological response modifiers prior to said step of culturing.

25. (Previously Presented) The composition of Claim 24, wherein said biological response modifier selected from the group consisting of granulocyte macrophage colony stimulating factor (GM-CSF), interleukin-3, interleukin-4, vitamin D, macrophage colony stimulating factor (M-CSF), Flt-3 ligand and tumor necrosis factor (TNF) alpha.

26. (Original) The composition of Claim 20, wherein said step of culturing is performed *in vitro*.

27-37. (Cancelled)

38. (Previously Presented) A mucin antigen delivery vehicle, comprising an isolated mannose receptor-bearing cell and a conjugate comprising mucin antigen and a carbohydrate polymer comprising mannose, wherein said carbohydrate polymer is a fully oxidized carbohydrate polymer comprising free aldehydes.

39-69. (Cancelled)

70. (Previously Presented) A composition for eliciting a cellular immune response, comprising isolated mannose receptor-bearing cells and a conjugate comprising an antigen and a carbohydrate polymer comprising mannan, wherein said carbohydrate polymer is a fully oxidized carbohydrate polymer comprising free aldehydes.

71. (New) A composition for eliciting a cellular immune response, comprising isolated mannose receptor-bearing antigen presenting cells and a conjugate comprising an antigen and a carbohydrate polymer comprising mannose, wherein said carbohydrate polymer is a fully oxidized carbohydrate polymer comprising free aldehydes.

72. (New) The composition of Claim 1, wherein said antigen is selected from the group consisting of a tumor antigen, a viral antigen, a fungal antigen, a protozoal antigen, and a bacterial antigen.